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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,224	12/28/2001	Matthew J. Wagner	200302319-1	9085

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EXAMINER
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MILORD, MARCEAU

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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03/26/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/034,224	<b>Applicant(s)</b> WAGNER ET AL.	
	<b>Examiner</b> Marceau Milord	<b>Art Unit</b> 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constien (US Patent No 6259932 B1) and Madsen et al (US Patent No 6181284 B1).

Regarding claims 1, 4-5, Constien discloses a computer system (figs. 1-3), comprising: a processor; a display (13 of figs. 2-3) coupled to said processor (col. 6, lines 11- 49; 9 of figs. 1-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of a display having an external casing in which a plurality of externally exposed recessed cavities are provided, at least one recessed cavities is adapted to receive a radio module and another recessed cavity is adapted to receive an antenna module.

On the other hand, Madsen et al, from the same field of endeavor, discloses an antenna system for a portable computer that allows communication between a portable computer and a

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wireless communication system. The antenna is placed in a use position when the computer is opened to facilitate wireless communication and the antenna is placed in a storage position when the computer is closed (col. 3, line 40-col. 4, line 59). Madsen et al shows in figure 5, the antenna is connected by a fastener to the base of the computer. The fastener is attached to a side wall of the recess. The fastener is an RF connector that attaches the antenna to the adaptor which provides the interface between the computer and the antenna. The antenna of the antenna system protrudes through the opening and is generally positioned perpendicular to the upper surface of the base col. 6, line 48-col. 17, line 51; col. 9, line 35-col. 10, line 28). Alternatively, the antenna may be constructed so that it is normally in the first position and it is attached to the computer such that it protrudes normal to the upper surface of the base when the computer is in the open position (figs. 6, 8-9; col. 10, line 50- col. 11, line 50). It is considered that this portable laptop computer unit contains a display that has an external casing in which a radio and an antenna module are received. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Madsen to the communication system of Constien in order to provide a portable computer having a base unit with a recess sized and configure to receive the antenna.

Regarding claim 2, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module and antenna module are flush with the outer surface of the casing (col. 6, lines 36-62).

Regarding claim 3, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Claim 6 contains similar limitations addressed in claims 1, 4-5, and therefore is rejected under a similar rationale.

Regarding claim 7, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Regarding claim 8, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display casing (col. 6, line 53- col. 7, line 54).

Regarding claim 9, Constien as modified discloses a computer system (figs. 1-3), wherein said plurality of radio modules is two radio modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 10, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module couples to other electronics in said computer system via a digital serial bus (col. 6, lines 15- 62).

Regarding claim 11, Constien as modified discloses a computer system (figs. 1-3), wherein said bus comprises a universal serial bus (col. 6, lines 15- 62).

Regarding claims 12, 15-16, Constien discloses a display (13 of figs. 2-3) for an electronic device having recessed cavities (col. 6, lines 11- 49) formed therein (9 of figs. 2-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of a display having a plurality of externally exposed recessed cavities into which radio and antenna modules can be removably inserted to provide a wireless communication capability for said electronic device.

On the other hand, Madsen et al, from the same field of endeavor, discloses an antenna system for a portable computer that allows communication between a portable computer and a wireless communication system. The antenna is placed in a use position when the computer is opened to facilitate wireless communication and the antenna is placed in a storage position when the computer is closed (col. 3, line 40-col. 4, line 59). Madsen et al shows in figure 5, the antenna is connected by a fastener to the base of the computer. The fastener is attached to a side wall of the recess. The fastener is an RF connector that attaches the antenna to the adaptor which provides the interface between the computer and the antenna. The antenna of the antenna system protrudes through the opening and is generally positioned perpendicular to the upper surface of the base col. 6, line 48-col. 17, line 51; col. 9, line 35-col. 10, line 28). Alternatively, the antenna may be constructed so that it is normally in the first position and it is attached to the computer such that it protrudes normal to the upper surface of the base when the computer is in the open position (figs. 6, 8-9; col. 10, line 50- col. 11, line 50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Madsen to the communication system of Constien in order to provide a portable computer having a base unit with a recess sized and configured to receive the antenna.

Regarding claim 13, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said radio module and antenna module are flush with the outer surface of the display (col. 6, lines 36-62).

Regarding claim 14, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 17, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including cavities for a plurality of radio modules and a plurality of antenna modules (col. 7, lines 9-63).

Regarding claim 18, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 19, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 20, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said plurality of radio modules is two radio modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 21, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including a recessed cavity for a communication hub interconnecting said radio module to said electronic device (col. 6, lines 11- 56).

Regarding claim 22, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a notebook computer (col. 6, lines 29- 49).

Regarding claim 23, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a handheld computer (col. 6, line 36- col. 7, line 45).

Response to Arguments

3. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. M./

Primary Examiner, Art Unit 2618

Marceau Milord

Primary Examiner

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